## 1450.4 Meeting Minutes - 04/03/08

**Attendees**:Doug Sprague, Ernie Wahl, Ajay Khoche, Kevin Coggins, Bruce Parnas, Jim O'Reilly, Jose Santiago

## Not Attending:

- Preamble
  - Record Meeting (\*2)
  - To Listen to recording of meeting:
    - Call the (US) dial-in numbers 1-877-421-0003 (toll free) or 1-770-615-1374 (toll)
    - Enter special playback passcode: 747464
    - Once in, enter \*3
    - Enter file number for this specific meeting: 26587101
    - Enter 1 to listen to the conference call
  - IEEE Meeting, no discussion of proprietary information
- Welcome to Kevin Coggins who has joined the working group
  - Kevin works on ATE systems for the USAF, managing many different types of testers. He will bring good depth to the team and help ensure good coverage of dot4 to address issues he faces.
  - Kevin to get signed up on the reflector
- Reviewed previous open action items (updates below in action items)
- Quick updates from sub-teams 1-4
  - Team 2 (Documentation -- Jose)
    - Jose still working on project plan
    - Jim to try to send task lists to Jose by sometime next week.
  - Team 3 (Integration w/other specs Doug)
    - Sent task list to Jose, need to start working on tasks
  - Team 4 (Binning Ernie)
    - On hold awaiting resolution of TestBase issues
    - Changes reviewed last week to be updated in master syntax
    - Ernie to send latest binning syntax doc to Jim for inclusion in master syntax doc. Jim to update master syntax and send to to Jose
    - Discussed Ernie's issues with testbase and standard type examples, Jim to review Ernie's examples
- Reviewed latest syntax updates (Jim -- attached to last week's agenda)
- File Reviewed: SyntaxSummary03-27-2008.doc sent with 3/27 agenda
   Line 99:
  - Discussed the following Bypass statement:
  - | Bypass (GoTo < PORTLABEL | VAR NAME > ( SkipActions ) );
  - Removed the portindex option for Bypass
  - Discussion about VAR NAME being int vs string
  - Doug to address in Variables what happens when assigning integers to booleans
  - Discussed pass being 0, and fail being non-zero
    - Allows for many failing scenarios to be represented

- o Line 109:
  - Removed this line from exit port stmt definition:
    - Return (integer expr);
  - Discussion of exit port schemes from different languages
  - Arbiter tends to be integer based
  - Jim has documented this out on the dot4 site at:
    - http://grouper.ieee.org/groups/1450/dot4/docs\_for\_wg\_meetings /Exit port schemes.pdf
  - Led to discussion about whether we need both a return value and a fail flag
- o Line 154:
  - Ernie suggests we could have just an integer result for a test and we don't need both boolean and integer
  - WG agreed to drop FailFlag and just utilize ReturnVal for the TestBase paramaters. Name may change a bit to reflect combined usage of ReturnVal.
- o Line 258-260:
  - Jim to change this section of the syntax based on Ernies latest binning changes which were reviewed by the team last week
- o Line 286, 309:
  - Removed "UseDefaults" and now uses "Inherit Testbase" instead.
  - New concise syntax will be like:
    - (Inherit <TestBase | TEST\_TYPE\_NAME>;)
  - Had some discussion about having a siteNumber as a testbase attribute.
- Issue from last time regarding need for someone to take on ownership of the On\* events. Doug to take a first stab at this. One thing that needs to be understood is what the difference is between OnSiteStart, and OnStart.
- Next Meeting 04/10/08

## Action Items:

- 02/28: Each sub-team lead to send task list for their team to Jose for inclusion in the project plan.
  - Ernie has sent %complete list
  - Doug has sent initial task lists for his two sub-teams to Jose
  - Jim to try to send his lists by the week of 4/10
- 02/28: Jose to merge current documents into new MS Word master document.
  - Still in progress, taking more time than initially thought
- 02/28: Jose to migrate reviewed issues into a new issues list, update based on previous discussion
  - Still in progress, has old list it from Jim, will try to send by Monday...
  - Moving to a spreadsheet which will be better
- 03/06: Ernie to move Standard Test Types documentation toward becoming an Annex in dot4 which would be a Proposal for Test Types
  - No master document yet to put this in as an Annex

- 03/06: Jim to update syntax related to WG24/WG11 to indicate that Inherit TestBase is allowed and recommended, but not required. Also, remove the UseDefaults keyword as an option on Line 265 & 284 of D18.
  - Jim to review 3/6 minutes and update
  - Done and ready for review
  - Reviewed in 4/3 meeting, marking this item done
- 03/06: Doug to address syntax of FuncExec (WG24b) and ensure consistency with STIL statement rules, as part of and integrating with other 1450 standards.
  - o On Doug's task list, sent to Jose
- 03/06: Doug to address WG25 as part of Runtime Variables
  - On Doug's task list, sent to Jose
- 03/06: Doug to address new WG30 issue (Define before Use for Variables and BinDefs) as part of integration with other specs.
  - On Doug's task list, sent to Jose
- 03/06: Jose to add new WG30 issue to current issues list.
- 03/06: Jose to add a "Look Ahead" work item to the project plan timeline to ensure extensibility for phase 2 capabilities.
  - Jose attacking from both ends with project plan, will add this item at the end of the timeline for dot4.
  - This should be the last item in the project plan timeline, and we will get to it assuming time is available then
- 03/06: Jim to send latest updated syntax and issues/resolutions docs to Jose for updates to master documentation.
  - o Jim needs to make changes mentioned above, then will send update
  - o Jim has sent all latest docs, and they are on the website
  - Marking this item done, Jim will keep updates going to Jose as he puts the new documents in place.
- 03/20: Doug to address array specification/indexing syntax as part of the Variables block issues to be resolved. Needs to account for the proper way to identify multiple tokens and how they are separated within the array bracket notation.
  - o Added to Doug's Runtime Variables task list
  - Jim noted table 2, pg 57 of dot 0 indicates comma as a token separator for timing expressions, but that does not appear to be the case
  - Doug & Jim to get together on this item and bring something back to the group.
- 03/20: Jim to post previous binning work document to the dot4 website under quicklinks in docs for working group meetings. Shows other attributes which may be required for binmaps.
  - Ernie has the latest updates
  - Not on web yet, but Ernie has the latest...
  - Jim asked Ajay for Inovus manual for test flow and binning
- 03/27: Doug to address adding new types: Unsigned, Char
  - Doug to get this into my task list

- 03/27: Ernie to put together alternative BinAndStop syntax/examples for discussion in subsequent meeting
  - Ernie has this done and will send out for review next week
- 04/03: Ajay to look into getting Inovus manual for test flow and binning
- 04/03: Ernie to send latest binning doc changes from 3/27 to Jim, Jim to update syntax summary doc and send updates to Jose for new master document.
- 04/03: Jim to update syntax summary document and send to Jose for inclusion into the master document
- 04/03: Doug to address in Variables, what happens when assigning integers to booleans, and in general, conversions
- 04/03: Doug to own defining the semantics of the On\* events for the TestProgram block, also used in other places in dot4

For reference STIL .4 information can be found at the IEEE STIL website: <a href="http://grouper.ieee.org/groups/1450/">http://grouper.ieee.org/groups/1450/</a> (select the <a href="http://grouper.ieee.org/groups/1450/dot4/index.html">P1450.4</a> link from the table) or use the direct link <a href="http://grouper.ieee.org/groups/1450/dot4/index.html">http://grouper.ieee.org/groups/1450/dot4/index.html</a>

----- Latest Prioritized High Level Dot4 Todolist ------

NOTE: First person in list is sub-team lead

Phase 1 (Must Have for ballot!!)

- 1 Process (Jose, Doug, Jim)
- 2 Documentation (Jose, Doug, Jim)
- 3 Integration with Other 1450 Specs (Doug, Jim, Bruce)
- 4 Binning (Ernie, Doug)
- 5 Runtime Variables (Doug, Ernie)
- 6 PatternExec constructs (Jim, Ajay)
  - Don't force to a 1-1 relationship with test methods
- 7 TestBase (Jim, Jose, Bruce)
- 8 Standard Predefined Test Types (Ernie, Ajay)
- Production Test Methods only for now
- Need a basic functional test at a minimum
- Tag to mark this as a functional test

Phase 2 (Can work around, but may pull some stuff into phase 1 if we have time)

9 MultiSite (??)

Issues...

- Have similiar concept we have in
- How many different sites? Also, iteration and access to them
- Syncronization between sites for shared resources
- parallel vs serial
- Allow for different flows per site?
- Need to Suspend, Disable, Enable sites
- Need to specify what program runs on what sites (assumes different dies being tested)
- Does this even belong in Test Flow??
- 10 Datalogging Interface? (Ajay)
- 11 Bypass (in PreActions) syntax and semantics (Jim)

- Package only, Wafer only issues
  12 Interfacing to Shmoo Plotting (??)
   May want to do this as a high level construct that you associate with an instance of a test
  13 Input/Output Interface? (Ernie??)
- 14 Writing/Reading to/from screen, files (??)